

REMARKS

The Official Action mailed February 24, 2005, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicants respectfully submit that this response is being timely filed.

The Applicants note with appreciation the consideration of the Information Disclosure Statement filed on August 22, 2003.

Claims 1-13 are pending in the present application, of which claims 1-4 are independent. The independent claims have been amended to better recite the features of the present invention. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 1 of the Official Action objects to the title as not descriptive. In response, the title has been amended. The amended title is believed to be clearly indicative of the invention to which the claims are directed. Reconsideration of the objection is requested.

Paragraph 2 of the Official Action objects to the specification. In response, the specification has been amended in accordance with the Examiner's suggestions. Regarding the addition of "information of the parent application" at page 1, line 2, it is noted that under 37 CFR § 1.76(b)(5), Applicants may provide domestic priority information in an application data sheet and such disclosure "constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and § 1.78(a)(2) or § 1.78(a)(4), and need not otherwise be made part of the specification." The Applicants respectfully submit that the application data sheet includes a specific reference to the prior application and fully complies with Rule 1.76. In any event, page 1, line 2, has been amended in accordance with the Examiner's suggestion. The specification has also been amended at this opportunity to correct minor typographical informalities. Reconsideration of the objections are requested.

Paragraph 5 of the Official Action rejects claims 1-4, 6, 10, 11 and 12 as obvious based on the combination of U.S. Patent No. 6,001,714 to Nakajima et al. and U.S. Patent No. 6,287,898 to Sera. Paragraph 6 of the Official Action rejects claims 5, 7-9 and 13 as obvious based on the combination of Nakajima, Sera and U.S. Patent No. 6,534,789 to Ishida. The Applicants respectfully submit that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).


The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 1-4 have been amended to recite "a sixth step of doping a single conductivity type impurity element into the semiconductor layer overlapped with the second tapered shape, after completing the fifth step." This feature is supported in the specification, for example, by Figures 1C

and 4B. Although Nakajima appears to teach a single conductivity type impurity element, Nakajima does not teach or suggest that the single conductivity type impurity element is doped in a semiconductor layer overlapped with a second tapered shape. Sera and Ishida does not cure the deficiencies in Nakajima. It appears that Sera discloses a gate electrode 13; however, the gate electrode 13 does not have a tapered shape. Ishida is relied upon to allegedly teach a specific angle of a tapered portion (page 7, Paper No. 20050214). However, Nakajima and Sera and Ishida, either alone or in combination, do not teach or suggest a sixth step of doping a single conductivity type impurity element into the semiconductor layer overlapped with the second tapered shape, after completing the fifth step.

Since Nakajima, Sera and Ishida do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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